

CLAIMS:

1. A method comprising:
communicating replay data to a plurality of agents coupled to a computing network,
wherein the replay data includes one or more network packets; and
5 issuing commands to the agents to control introduction of the network packets on the
computing network by the agents.
2. The method of claim 1, further comprising:
generating a set of triggers, wherein each trigger defines one or more conditions;
10 communicating the triggers to the agents;
receiving signals from the agents based on the conditions of the triggers; and
issuing the commands to the agents in response to the signals.
3. The method of claim 2, wherein issuing the commands to the agents in response to
15 the signals comprises selectively directing one or more of the agents to introduce the network
packets upon receiving the signals.
4. The method of claim 2, wherein generating a set of triggers comprises generating a
set of triggers based on user input.
- 20 5. The method of claim 1, wherein issuing commands comprises issuing start commands
to the agents directing the agents to initiate introduction of the network packets on the
computer network.
- 25 6. The method of claim 1, further comprising:
associating portions of the replay data with respective agents;
storing a replay scenario that defines a conditional flow for introduction of the
portions of the replay data by the agents; and
30 issuing the commands to the agents according to the replay scenario.

7. The method of claim 6, further comprising receiving input from the user defining the replay scenario.

8. The method of claim 6, wherein associating portions of the replay data with the respective agents comprises associating portions of the replay data with respective agents in response to input received from a user.

9. The method of claim 1, further comprising:
capturing network packets from the network using the agents; and
selecting portions of the captured network data for use as the replay data.

10. The method of claim 9, wherein selecting portions of the captured network data comprises selecting the portions in response to user input.

11. The method of claim 9, further comprising:
communicating the captured network data to an aggregator;
aggregating the captured network packets into sets of network packets based on source information and destination information for the network packets;
presenting the aggregated network packets to a user; and
selecting the portions based of the aggregated network packets to use as the replay data based on input from the user.

12. The method of claim 11, wherein aggregating the captured network packets comprises:

sorting the network packets based on timestamps of the network packets;
assigning the network packets having equal source information and equal destination information to a common set; and
identifying within the sets duplicate packets that were captured by different agents.

13. The method of claim 12, wherein sorting the network packets comprises determining an originating packet for the duplicate packets.

14. The method of claim 12, wherein identifying duplicate packets comprises:
identifying network packets having equal sequence numbers and acknowledgement
numbers; and

5 performing a byte-by-byte comparison for payloads of the identified packets.

15. The method of claim 11, wherein the source information comprises one of a media
access control (MAC) address and a Data Link Control (DLC) address for a source network
device.

10 16. The method of claim 11, wherein the destination information comprises one of a
media access control (MAC) address and a Data Link Control (DLC) address for a
destination network device.

15 17. The method of claim 1, further comprising:
modifying the replay data based on user input; and
communicating the modified replay data to agents.

20 18. The method of claim 17, further comprising modifying the replay data based on user
input.

19. The method of claim 17, further comprising introducing the respective network
packets of the replay data with the agents.

25 20. The method of claim 19, wherein introducing the respective network packets
comprises modifying sequence numbers and acknowledgement numbers of the packet to
simulate authentic network activity.

21. A method comprising:

storing replay data that includes network packets and that defines a conditional flow for introduction of portions of the replay data by respective agents coupled to a computing network;

communicating portions of the replay data to the respective agents; and

issuing commands to the agents to control introduction of the network packets on the computing network by the agents.

22. The method of claim 21, further comprising:

receiving signals from the agents indicative of network events; and

issuing the commands to the agents in response to the signals and in accordance with the replay scenario.

23. The method of claim 21, further comprising:

generating a set of triggers, wherein each trigger defines one or more conditions;

communicating the triggers to the agents;

receiving signals from the agents based on the conditions of the triggers; and

issuing the commands to the agents in response to the signals and in accordance with the replay scenario.

24. The method of claim 23, wherein issuing the commands to the agents comprises selectively directing one or more of the agents to introduce the respective portions of the network packets upon receiving the signals.

25. The method of claim 21, further comprising:

capturing network packets from the network using the agents; and

selecting portions of the captured network packets for use as the replay data.

26. The method of claim 25, wherein selecting portions of the captured network portions comprises selecting the portions in response to user input.

27. The method of claim 25, further comprising:

communicating the captured network data to an aggregator;
aggregating the captured network packets into sets of network packets based on
source information and destination information for the network packets
presenting the aggregated network packets to a user; and
5 selecting the portions based of the aggregated network packets to use as the replay
data based on input from the user.

28. The method of claim 27, wherein aggregating the captured network packets
comprises:

10 sorting the network packets based on timestamps of the network packets;
assigning the network packets having equal source information and equal destination
information to a common set; and
identifying within the sets duplicate packets that were captured by different agents.

15 29. A system comprising:

a plurality of distributed agents coupled to a computing network; and
a replay module coupled to the network to communicate to the agents replay data that
includes one or more network packets, wherein the replay module issues commands to the
agents to control introduction of the network packets on the computing network by the
20 agents.

30. The system of claim 29, further comprising a storage medium to store a set of
triggers, wherein each trigger defines one or more conditions, and further wherein the replay
agent:

25 communicates the triggers to the agents;
receives signals from the agents based on the conditions of the triggers; and
issues the commands to the agents in response to the signals..

31. The system of claim 30, wherein the replay module selectively directs one or more of
30 the agents to introduce the respective network packets upon receiving the signals.

32. A system comprising:
a plurality of distributed agents coupled to a computing network;
a replay module coupled to the network having a storage medium to store replay data
that includes network packets and defines a conditional flow for introduction of the replay
5 data by the agents, wherein the replay module communicates portions of the replay data to
the agents, and issues commands to the agents according to the conditional flow to control
introduction of the network packets on the computing network by the agents.

33. The system of claim 32, further comprising a communication link coupling the agents
10 to the replay module, wherein the replay module receives signals from the agents via the
communication link indicative of network events, and further wherein the replay module
issues the commands to the agents via the communication link in response to the signals and
in accordance with the replay scenario.

34. The system of claim 32, wherein the storage medium stores a set of triggers, wherein
15 each trigger defines one or more conditions, and further wherein the replay module:
communicates the triggers to the agents; and
receives signals from the agents based on the conditions of the triggers; and
issues the commands to the agents in response to the signals and in accordance with
20 the replay scenario.

35. The system of claim 32, further comprising an aggregation module coupled to the
network to receive packets captured from the network by the agents.

36. The system of claim 35, wherein the aggregation module aggregates the captured
25 network packets into sets of network packets based on source information and destination
information for the network packets.

37. The system of claim 36, further comprising a user interface to present the aggregated
30 network packets to a user, and to select portions of the aggregated network packets to use as
the replay data based on input from the user.

38. The system of claim 37, wherein the aggregation module identifies duplicate packets that were captured by different agents, and presents the non-duplicate network packets on the user interface.

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39. A medium comprising instructions to cause a processor to:
communicate replay data to a plurality of agents coupled to a computing network,
wherein the replay data includes one or more network packets; and
issue commands to the agents to control introduction of the network packets on the
10 computing network by the agents.

40. The medium of claim 39, further comprising instructions to cause the processor to:
generate a set of triggers, wherein each trigger defines one or more conditions;
communicate the triggers to the agents;
15 receive signals from the agents based on the conditions of the triggers; and
issue the commands to the agents in response to the signals.

41. The medium of claim 40, wherein the instruction cause the processor to selectively
direct one or more of the agents to introduce the respective network packets upon receiving
20 the signals.

42. The medium of claim 39, wherein the instruction cause the processor to:
associate portions of the replay data with respective agents;
store a replay scenario that defines a conditional flow for introduction of the portions
25 of the replay data by the agents; and
issue the commands to the agents according to replay scenario.

43. The medium of claim 39, further comprising instructions to cause the processor to:
direct the agents to capture packets from the network; and
30 select portions of the captured network data for use as the replay data.

44. The medium of claim 43, further comprising instructions to cause the processor to aggregate the captured network packets into sets of network packets based on source information and destination information for the network packets.

- 5 45. The medium of claim 44, further comprising instructions to cause the processor to sort the network packets based on timestamps of the network packets, assign the network packets having equal source information and equal destination information to a common set, and identify within the sets duplicate packets that were captured by different agents.